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ABSTRACT

This paper describes the formal and informal processes used to evaluate vocational education programs, examines their impact on appropriations, priorities, and policy recommendations, and addresses the question of what policy options for vocational education Congress ought to consider as it confronts legislative renewal. Several criteria are suggested for policy research, which is defined as the study of empirical relationships between dependent variables of high policy relevance and independent variables amenable to manipulation and control. Current socio-economic developments considered important in planning for vocational education programs are described. These involve the change in the role of workers and in work values, the rise of job competition, dehumanization of work, and unequal distribution of wealth. The employment outlook through the 1970's is briefly reviewed and major trends are identified. The potential effect of such developments on vocational education is traced through the various legislative programs and decision-making structures of the past, and the application of various evaluation strategies to policy recommendations is analyzed. In examining how social and economic changes are reflected in vocational education policy, the recent emphasis on educational equity is traced as a take-off point for discussion of vocational education policy deliberations at local, state, and federal levels. (NJ)

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POLICY ALTERNATIVES IN THE EVALUATION OF VOCATIONAL EDUCATION

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Introduction.

Over the past decade, federal, state, and local officials have energetically defended their record of accomplishments in serving the various target populations identified in the Vocational Education Act of 1963 and subsequent legislation. Equally forceful have been the critics who have shown exquisite timing in their condemnation of "vocationalism" at precisely those times when Congress has undertaken to modify or extend current legislation. The Edward Chases of the early sixties have been replaced by the Reubens and O'Tooles of the mid-seventies. Both camps have drawn heavily upon a burgeoning number of evaluative studies (over three hundred since 1965) to make their cases. And both have reached quite different conclusions. As the Vermont farmer replied when asked whether it was better to milk from the left or the right side of a cow, "It all depends on how you want to look at it." "How" to look at the results is the central purpose of this paper. Have vocational educators carried out the mandate of Congress? What policy issues ought Congress to be considering as it confronts yet another round of legislative renewal? Have the policy alternatives been weighed in light of past findings and future needs? Are the results of evaluative studies open to question because of methodological and other problems? These and other issues will be addressed throughout this paper.

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Vocational education in this country embraces a wide range of programs: It is designed to meet the manpower needs of the nation. It is expected to aid the disadvantaged and the handicapped in their fight for equal educational and employment opportunities. It is also a way of inculcating basic learning skills--especially important because inadequate preparation in reading or math may have serious consequences for anyone seeking all but the lowest level of work. Qualifying students for work is, of course, its most important purpose. It offers to those hoping to enter technical and non-professional occupations a chance to acquire entry-level job skills.

Lecht, in his book Evaluating Vocational Education--Policies and Plans for the 1970's, points out that "the common denominator of all these programs is their eligibility for federal support through the Vocational Education Act and related legislation."[1] In assessing how well vocational education has served its multitude of purposes, we tend naturally to look to Congress and the Executive Branch of the federal government for policy guidance. It is here that vast sums of money are authorized, appropriated, and spent, following the guidelines published in that testimonial to the idiom of the bureaucrat, the Federal Register. But it is worth remembering that the design and delivery of vocational programs are largely the responsibilities of state and local education agencies. "...the federal government's support is too small a share of the total outlay to be a primary agent for change...in fiscal 1970 a reported total of $1.8 billion was spent by federal, state, and local governments...

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[1] Leonard A. Lecht, Evaluating Vocational Education--Policies and Plans for the 1970's. New York: Praeger Publishers, 1974, p.2.

one-sixth of the total represented federal support for vocational education."[2]

The goals and programs of vocational education as currently practiced are at the center of a larger controversy surrounding the coming role of work and education in America. Policy-makers from all walks of life--federal legislators and executives, state and local politicians and educators, employers, parents, and even workers--are embroiled in a running debate over how and who vocational education should serve. Supporters and critics alike agree on the need for a national debate which strives to clarify not only the goals but the ideology undergirding the structure and role of vocational education in America.

Charles Law, State Director of Occupational Education in North Carolina, argues that such debate should "not center on defending our practices but should, instead, re-evaluate who we are, what we are, and most important of all, why we exist."[3] James O'Toole, HEW's principal author and editor of Work in America, in a recent edition of Change Magazine suggests that before "losing our heads and administering an overdose of vocationalism to meet the complex problems of underemployment, we might first try to understand the situation more deeply and more broadly to see what other options might exist."[4] Both contentions, one as it were coming from within the movement and the other from outside, warrant our attention.

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[2] Ibid., p. 3.

[3] Charles J. Law, Jr., "A Search for a Philosophy of Vocational Education," presented at the Annual Meeting of State Directors of Vocational Education, Washington, D.C., May, 1975, p. ii.

[4] James O'Toole, "The Reserve Army of the Underemployed," Change Magazine, May, 1975, p. 30.

Considering these issues objectively requires a careful review not only of the types of evaluative studies of vocational education being conducted but also how those studies are influencing policy decisions and with what effect. The context of those decisions--current issues and past history--will also be explored. The current issues cannot possibly be understood without first identifying the forces at work which shape that debate. What follows is an attempt to link the current controversy with the past. Past and present goals will be compared. Policy issues will be examined. The impact of evaluative research on policy decisions will be reviewed. The paper will conclude with several suggestions on how evaluative research might be structured in the future for use in guiding decisions and recommendations concerning vocational education research and development.

Policy Research Defined.

Before tackling the task of assessing the impact of evaluative studies on the decisions of federal and state policy-makers, a bit more precision in the use of the term "policy research" is desirable. In a presentation on the role of policy research at last year's A.V.A. convention in New Orleans, I defined policy research as "the study of empirical relationships between dependent variables of high policy relevance and independent variables that are amenable to manipulation in the context of an operating program."[5]

Such a definition implies several important considerations. First, policy research studies should have a sense of urgency about them in order to be relevant to the concerns of decision-makers. Such studies will often have a

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[5] David S. Bushnell, "The Role of Policy Research in Vocational Education," presented at the American Vocational Association Annual Convention, New Orleans, Louisiana, December, 1974.

short turn-around time. Second, the policy researcher should not be looking for ultimate solutions to problems but should hold out for better than chance predictions. Third, the policy researcher should concern himself primarily with those variables which educators have some control and which can be guided by a conceptual model. Fourth, the sponsors of policy research should have sufficient credibility and stature that their decisions will be implemented. Without decision-making authority, policy research is an exercise in futility. And, fifth, decision-makers are prone to respond to information inputs appropriate to their level of responsibility and interests. Thus, it is the wise policy researcher who couches his results in a language and a format suitable to the intended audience.

This last issue has received scant attention and yet often determines the difference between successful and unsuccessful policy research. Brickell and his associates[6] found, in assessing the information needs of decision-makers in education, that their needs differed radically depending on the type of decision-maker involved. National Institute of Education (NIE) officials, for example, tended to ask quite different questions concerning the effectiveness of NIE, than did representatives of other agencies. HEW, OMB, and GAO officials were concerned more with the overall performance of NIE as an organization and less with the success or failure of specific projects funded by NIE. Higher level decision-makers on the whole tended to be more concerned about how a given program fitted into a set of research needs while practitioners at the

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[6] Henry M. Brickell, Carol B. Aslanian, Laurel J. Spak, Data for Decisions: An Analysis of the Evaluation Data Needed by Decision-Makers in Educational Programs, New York: Policy Studies in Education, Inc., March, 1974.

local level judged the value of the research in terms of its utility in the classroom.

Policy issues surrounding the present and future role of vocational education research require the gathering and reporting of evaluative data on those issues. If, for example, the Committee on Vocational Education Research and Development of the National Research Council is primarily concerned with the quality of research sponsored with monies allocated under Part C of the Vocational Education Act, then a whole range of questions dealing with internal and external validity need to be addressed. If, on the other hand, the Committee is interested in what changes in vocational education have occurred at the local level as a result of research, then a different set of criteria need to be employed. The purpose of this paper is less ambitious but nonetheless important from a policy-making point of view: It is to describe the evaluative processes in use (both formal and informal) by Congress, state legislatures, state boards, and state and national advisory councils and their impact on appropriations, priorities, and policy recommendations.

Before returning to the main body of this paper, a comment on the state of the art of evaluative research is in order. According to Averch, et al.,[7] five forms of evaluative research are currently in use today:

(1) The input-output approach. Here research is directed toward the question, "What variations in educational outcomes are due to variations in resources available to the system?" Since this type of research is expected

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[7] Harvey A. Averch, et al, How Effective Is Schooling? A Critical Review of Research. Englewood Cliffs, New Jersey: Educational Technology Publications, 1974.

to identify the extent to which each resource (teacher characteristics, per pupil expenditures, class size, etc.) impacts on student performance, results should enable policy-makers to make better decisions regarding the allocation and use of resources.

(2) The process approach. Here the focus is on what happens inside the educational institution. The concern is with the learning process and the response of students to that process. For the most part, studies in this domain are of the laboratory variety with much of the methodological concern focusing on the control of confounding variables.

(3) The organizational approach. Understanding how the structure and climate of a school influences the response of the school system as a whole is the central concern here. Ability to adapt to changing expectations, the role of teachers, administrators and school boards, community attitudes--all of these factors are perceived as important variables related to student performance. Case studies and questionnaire surveys are the data-gathering instruments employed.

(4) The evaluation approach. Investigators employing this approach are concerned with the question, "How much change in educational outcome can be attributable to certain types of educational intervention?" Usually this approach requires major changes in resources or processes in order to assess their impact on large groups of children. Why or how an intervention affects outcomes is not the primary concern. Ex post facto studies comparing target groups with control groups is the most frequently employed analytical technique.

(5) The experiential approach. Here the school is viewed as a setting in which student experiences impact on the development of self-concepts and

social skills. Research is primarily conducted through participant observations and narrative descriptions.

Taken as a group, these five approaches (admittedly oversimplified) describe the domain of strategies available to researchers concerned with finding answers to policy questions. Which approach offers the greatest return for the research dollar invested will not be explored by this paper. An attempt will be made, however, to judge the utility of each as it has served, or failed to serve, policy-makers at federal and state levels. Which approach (or approaches) proves to be most useful--does it influence decisions--can then be ascertained. Mapping these alternative approaches to policy questions in a systematic manner will, it is hoped, provide members of the Committee with a frame of reference that will function as a useful backdrop against which to assess research investments in vocational education evaluation in the past and to make policy recommendations for the future.

Today's Debates and Tomorrow's Dilemmas.

The runaway victory for Democrats in last year's election was interpreted by observers of the contemporary scene[8] as likely to result in expanded Congressional support for vocational education. The fact that many of the provisions in existing legislation were up for renewal in 1976 and that new initiatives would have the backing of a majority of Congressional representatives who were on record as supporters of vocational education lent credence to that expectation. What form that support will take has already been sketched in the

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8 See, for example, Education, U.S.A., Washington, D.C., Vol. 17, No. 11, Nov. 11, 1974.

various bills now before Congress. Congressional debate centers on such questions as to how much of the appropriation should be earmarked for post-secondary education, who at the state level should have what responsibilities, and what planning procedures should be employed. Shaping that debate are a number of crises and dilemmas that will influence the ultimate outcome.

A little over ten years ago, Grant Venn, in his book entitled Man, Education and Work, observed prophetically that "The Nation's task is to make certain that the human promise of America is not lost to the economic promise of technology.... Young people are entering a technological world of work unequipped with the tools they need for survival."[9]

Harman observes[10] that modern society (and this incidentally includes all developed countries) is confronted with a series of dilemmas. We need to ensure continued economic growth through expansion of productivity and services, but we are finding it harder and harder to live with the consequences. The penalty of a consumption-oriented society has been well documented as we deplete our natural resources, as we become increasingly dependent upon automated production processes, and as we pollute our environment. While rising production and proliferating goods and services make it possible for us to compete with foreign products and services, we must ensure that there is a continuing demand for such products if an expanding economy is to be maintained. This emphasis, unfortunately, has already resulted in a reduced need for workers. And as the number of workers required to maintain a high level of productivity has diminished, the competition for jobs rises.

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9 Grant Venn, Man, Education and Work: Post-Secondary Vocational and Technical Education, Washington, D.C.; American Council on Education, 1964, p.5.

10 Willis W. Harman, "The Coming Transformation in Our View of Knowledge," The Futurist, Vol. 8, No. 3, June, 1974, pp. 127-128.

We are well into a decade marked by uncertainity and economic instability. An expanding economy requires not only increasing productivity but continuing advancements in science and technology. Structural unemployment and the unanticipated consequences of technological development are the result.

Not only is the role of workers in our society changing, but so are the values associated with work. Daniel Bell[11] accurately foresaw that ours was to be the first post-industrial society. There has been a period of rapid expansion and consolidation of private businesses into larger organizations with streamlined production methods substituting machines for people. This continuing shift from smaller to larger and more efficient production systems (the energy crisis notwithstanding) is resulting in increased pressure to spread available work opportunities and in the number of underemployed persons. Pressures for early retirement, federal support for expansion of public works, and union restrictions on hiring are other likely consequences. Fragmentation of jobs into routinized and monotonous tasks has led to increasing dissatisfaction among workers, particularly at the lower rungs of the occupational ladder.[12] The growing shortage of meaningful work opportunities and the oversupply of better-educated people has prompted employers to inflate the credentials required for many jobs.

Job competition intensifies racial tensions and conflict between the sexes. While unemployment compensation has taken some of the edge off of economic deprivation suffered from loss of work, the emotional impact is still devastating.

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11 Daniel Bell, The Coming of the Post-Industrial Society. New York; Basic Books 1973.

12 Studs Terkel, Working. New York, N. Y., Pantheon, 1974.

Another dilemma facing industrialized nations is the growing interdependence of the world's economy. Instantaneous communication, international travel, and the complex pricing policies governing scarce resources has created a world system which is increasingly vulnerable to deliberate or accidential economic sabotage. The proliferation of new information technology through the use of computers has led to a need to protect the public against encroachments upon their privacy. But such concerns often lead to centralized bureaucratic controls which plague administrators in education and elsewhere—witness the confusion arising over the recent Buckley Amendment to the Education Act of 1964. Congressional hearings and Presidential Commissions have a way of spawning new controls, all the while decrying the growth in government bureaucracy. Affirmative action programs, student loan programs, minimum wage laws, these and numerous other regulations have buried local administrators under an avalanche of paper. Higher education associations are lobbying Congress to help their member institutions defray the cost of compliance.

As we continue to expand big government and big business and as automation continues its advance, we are experiencing the dehumanizing of work. A sense of control over one's own destiny has been sacrificed (if, in fact, it was ever achieved) for many who live and work in industrialized societies. We have seen better-educated workers evidencing less and less willingness to accept routine assignments, younger workers are seeking out jobs where a degree of self-fullfillment and self-directiveness are possible.[13]

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13 Daniel Yankelovich and Ruth Clark, "College and Noncollege Youth Values." Change, September, 1974.

Highly industrialized nations such as Sweden have had to open up the decision-making process to involve workers and their representatives in discussions on how to improve the quality of the work environment. They have become pioneers in exploring job enlargement concepts and work scheduling, and are even letting workers set their own pay scale and hours of work.[14]

Perhaps the least understood dilemma facing developed and developing countries alike is the increasing gap between the "have" and "have-not" nations. It results in increased frustration among the "have-nots" because of rising expectations and the problems concurrent with economic growth. How can developed nations help others to achieve a minimum standard of living? How can this be achieved without, of necessity, lowering one's own standard of living?

These, then, are the dilemmas that politicians, voters, and educators, particularly vocational educators, face. What insights and skills do today's vocationally oriented students (and this includes all students in high school today) need in order to grapple effectively with the multiplicity of choices and citizenship responsibilities which they will face as adults? To function effectively in a complex, technologically contaminated society requires survival skills well beyond those emphasized in vocational education programs during the first quarter of this century.

Employment Outlook.

What is the outlook for jobs during the remainder of the seventies? The Bureau of Labor Statistics (BLS) tells us that the outlook for those holding college degrees or vocational certificates is pleasant but with occasional

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14 James O'Toole, et al, Work in America, Cambridge, Mass.; MIT Press. 1972. pp. 10-115.

thunder storms.[15] The demand for clerical workers, technicians and service workers of all types will continue to expand during this decade. Of the estimated four million jobs opening up each year during the remainder of the decade, 40 percent will require some form of post-secondary education.[16] The expectation is that by 1980, some 102 million workers will be employed in the United States. Over 25 percent of this work force will consist of young adult workers between the ages of 25 and 34. This, of course, represents the movement of the "war baby boom" into this age bracket.

All in all, approximately 41 million new workers will have entered the labor market during the decade. Thirty-six million of these will be new, younger workers seeking job opportunities for the first time.[17] Another six million represent women who are seeking to reenter the labor market, bringing the overall rate of participation of women in the labor force to a record 38.5 percent. Overall, the median age of workers will evidence a dramatic decline from 38.2 years in 1970 to 35.2 in 1980. Thus, not only will the younger workers seeking to gain a foothold in the labor market feel the pressure of competition from their peers, but efforts of the less educated older workers to hold on to their jobs are likely to lead to increased enrollement in upgrading or retraining programs.

By 1980, it is estimated that 25 percent of the work force will have a

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15 Bureau of Labor Statistics, College Educated Workers, 1968-1980, U. S. Department of Labor, 1970.

16 Ibid.

17 Bureau of Labor Statistics, "The U. S. Labor Force: Projects to 1990," Monthly Labor Review, July, 1973.

college degree.[18] Divided another way, 50 percent or more of those with college degrees will be under the age of 35 while the majority of those with only an elementary education will be over the age of 50. Employers confronted with a growing supply of more highly educated job applicants are likely to recruit those with degrees even though the job opening they have to offer may not require that level of educational attainment. Thus those with limited schooling and those in the older age brackets are likely to find themselves competing with younger, better-educated adults.

More white collar jobs than blue collar and service oriented occupations combined will be available by 1980. The BLS projections put the supply of college graduates roughly in balance with manpower requirements between 1968 and 1980. "The large output of highly educated workers is expected to end many long-time occupational shortages and promises help for other occupations in which shortages may persist...."[19] The BLS report goes on to observe, however, that there will be sharp differences among occupations in terms of employment opportunities. Social scientists will be, and already are, oversupplied. Professional health occupations, on the other hand, are expected to continue to experience shortages. Engineers, business majors, geologists, and geophysicists are also likely to enjoy a seller's market. The demand for technical level personnel in these same occupational areas will show a corresponding rise, together with policemen and firemen.

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18 Bureau of Labor Statistics, "The United States Economy in 1985: An Overview of BLS Projections." Monthly Labor Review, December, 1973.

19 Bureau of Labor Statistics, The U. S. Economy in 1980: A Summary of BLS Projections, Bulletin 1673, 1970, p. 35.

At the high school level, it is expected that for every vocational education graduate in construction and repairmen fields, three jobs will be waiting by 1980. Bus drivers and truckers will enjoy a 15 to 1 ratio. Of perhaps greater significance is the fact that one out of every four jobs available in 1980 will be in factories or in low-level service occupations. Those who are prepared to accept employment in these categories will find work readily, although such positions may not be wholly satisfying.

These shifts in employment opportunities have not gone unnoticed. In fact, the falloff in enrollments recently at the post-secondary level[20] may be partially attributable to the feeling among students that college is not the only way to acquire the skills and experience needed to successfully enter the world of work. Nonetheless, a college education still holds a magical appeal for those who want higher paying jobs and status. Almost twice as many persons are expected to earn bachelor, master's and doctor's degrees this academic year compared with a decade ago.[21]

While participation at the post-secondary level continues to be related to family income, that dependency has been declining over the past few years, particularly in community colleges and technical institutes.[22] Minority groups and women have also shown dramatically increased rates of participation at the college level since 1970.[23] Older students, women and mid-careerists are also

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20 George Bonham, "The Coming Shake Out in Higher Education." Change, July-August, 1974.

21 National Center for Educational Statistics, The Condition of Education. Washington, D. C.; U. S. Government Printing Office, 1975, p. 81.

22 Ibid., p. 110.

23 Ibid., p. 80, 108.

seeking out ways to acquire new job skills or refurbish and update old skills. More part-time students, more mature, even better motivated students are in evidence.[24] While those who finish college are likely to earn more income over their working career than non-college graduates,[25] there is some indication that that pattern is beginning to change. The fact that more white male high school graduates are opting to do something else than go on to college immediately in part reflects the growing awareness that a college degree does not guarantee employment.[26] Ironically, black college-age male students are seeking a college education in greater numbers.[27] The same proportion of black males attended college as did white males in 1972.[28] Many of the college-bound black students came from families whose incomes were well below those of the average white college freshmen.

Unfortunately, the sacrifices required of families of low-income students in paying for college may prove to be an unsound investment if, in fact, college degrees no longer offer a guaranteed passport to the future. Commissioner Bell spoke to this paradox last October when he said: "The paradox...is that while young people have not tuned in precisely enough during their school years to the

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24 Patricia K. Cross, "The New Learners." Change, February, 1973.

25 U. S. Department of Commerce, Bureau of the Census. Annual Mean Income, Lifetime Income and Educational Attainment of Men in the United States for Selected Years 1956 to 1972. Washington, D. C.; U. S. Government Printing Office, 1973.

26 Other reasons contributing to this falloff since 1972 are the removal of the draft and the rising cost of tuition.

27 National Center for Educational Statistics, op. cit., p. 110

28 Bureau of Labor Statistics, "Employment of High School Graduates and Dropouts, October, 1972." Washington, D. C.; U. S. Department of Labor, Special Labor Force Report 155, 1973, p. 29. This development reflects the continuing progress of blacks educationally. Since 1964, the proportion of blacks in the labor force with at least a high school degree increased from 35 percent to 54 percent, according to a recent Monthly Labor Review article.

needs of adult work life, many of them still have overvalued the market value of education."[29] He then goes on to quote the HEW-sponsored study. Work in America, where "the challenge of jobs now available to those with high credentials has failed to increase in proportion to the increased attainments and heightened aspirations of the young.... The expansion of professional, technical, and clerical jobs in the past few years absorbed only 15 percent of the new educated workers. The remaining 85 percent accepted jobs previously performed by individuals with fewer credentials."[30] Bell points out that a recent CEEB study of college-bound high school seniors in 1973 and 1974 found that one out of four seniors were undecided as to whether they really wanted a college education and what career they wished to pursue. He concludes by observing that the cost of preparation for a career is higher today than ever and that unless the student is cued to the types of career choices available to him, then that student is unprepared to enter the world of work.

Much of our past effort to justify the sizeable investment which we, as taxpayers, make in education each year has been in terms of the economic return on that investment. That justification may no longer be sufficient. The function of education as a sorting, selecting and certifying agent has begun to change. Thomas Green, in a paper prepared for a seminar on Alternatives in Post-Secondary Education[31] argues that America's post-industrial status

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29 Terrance H. Bell, "The New Partnership--Academia and the World of Work," presented at the annual meeting of the College Entrance Examination Board, Washington, D. C., October, 1974.

30 O'Toole, et al, op. cit., pp. 44-45, 134-136.

31 Thomas F. Green. "Breaking the System: The Redistribution of Educational and Non-Educational Goods," prepared for the Educational Staff Seminar, Washington, D. C., April, 1971.

requires an educational system that is not directed toward preparation for job-oriented society. "It is erroneous," he states, "to expect the expansion of post-secondary education to bring about a redistribution of life goods, i.e., jobs, status, income. Because our system is sequential, we tend to assume that educational opportunities enlarge by encouraging more people to go on to the next level. Thus, as enrollment in a particular level increases, it will become less of a benefit to complete it and more of a necessity. Only after the system is saturated by the middle and upper classes, do members of the lower class participate at a given level. Therefore, as the system approaches one hundred percent participation at a given level, the target level will shift upward."[32]

The play of forces in the free market economy is already forcing some students to set lower, hopefully more realistic, career goals, while others have elected to continue their fight up an increasingly competitive career ladder. As a result, area vocational schools, technical institutes, and community colleges are finding that they have to take on increasingly tough educational chores--that of remediating the learning skills of students and qualifying them for work or for college.

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32 Ibid. Green attacks the assumptions of the necessity of sequentiality and selectivity beyond grade twelve. He suggests that we should allocate to each individual a certain number of years of education which could then be taken advantage of at any point in one's life. Thus by changing the time at which education takes place, each person could effectively individualize the educational system to suit his or her varying needs over a lifetime.

Policy Making in Vocational Education.

How are social and economic changes reflected currently in vocational education policy? What decision-making process or structure influences vocational education policy to make it more responsive to the changing needs of our society? To better understand this decision-making process at work, I will trace the relatively recent emphasis on educational equity (post World War II) as a take-off point for discussion of vocational education policy deliberations at the local, state and federal levels. When relevant, employment of the five evaluative strategies (see pages 6 and 7) in arriving at a particular legislative strategy or regulation will be discussed. The effects of movements within the larger society on educational policies and practices generally and their implications in the vocational education domain, will also be noted.

As early as the 18th century, the philosopher, Jacques Rousseau, sought to promote egalitarianism through the expansion of educational access. However, it has only been within the past two or three decades that most students in the United States were expected to complete high school and that a large proportion were expected to go on to college. In 1948, the Truman Commission on Higher Education noted the need for expanded educational opportunities beyond high school. Members of the Commission made much of the fact that 49 percent of those conscripted for military duty had the capability, in their judgment, to complete fourteen or more years of education, according to their test scores on standardized achievement tests. The Commission concluded that "the time has come to make education through the 14th grade available in the same way that high school is now available."[33] Opening the doors of higher education to

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33 President's Commission on Higher Education. Higher Education for American Democracy. New York: Harper & Brothers, Vol. 1, 1947.

veterans and other candidates, regardless of race, religion or wealth was a dramatic departure from the more traditional practice of selective screening.

In 1959, James Bryant Conant completed his study of the American high school. In his book Slums and Suburbs,[34] he concludes that school programs and practices largely reflect the status and ambitions of the families being served. Citing his agreement with the Supreme Court's decision on Brown vs. the Board of Education of Topeka (1954), he observed that "through the existence of at least some mixed schools (identified through a series of case studies) integrated teaching staffs, and increased expenditures in slum schools, I suggest that the education of Negroes in Northern cities can be made satisfactory and their status improved."[35] Conant's suggestions regarding the reform of inner-city high schools through the introduction of work-study programs and an expanded vocational education program were instrumental in the drafting of the Youth Employment Opportunities Act of 1961 (a forerunner of the Manpower Development and Training Act of 1962). It is worth noting, however, that Conant endorsed the conventional wisdom of the times when he stated: "In a heavily urbanized and industrialized free society, the educational experiences of youth should fit their subsequent employment."[36]

Conant and a growing number of influential educators advocated expanding the base of federal support for education. Precedent, they argued, had already

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34 James Conant, Slums and Suburbs. New York, N.Y.: McGraw-Hill Book Company, Inc., 1961.

35 Ibid., pp. 31-32.

36 Ibid., p. 40.

been set by the enactment of such legislation as the Morrill Act of 1862, the Smith-Hughes Act of 1917, the Cooperative Research Act of 1954 (which had been sold largely on the argument that if industry could benefit from investments in R&D, so could education), the Library Services Act of 1956, and the National Defense Education Act (NDEA) of 1958. This latter piece of legislation alone enabled more than 1.5 million men and women to pursue higher education under NDEA's Title II National Student Loan Program. Under Title VIII, technical education programs in such occupational fields as data processing, electronics, and drafting design were offered in technical institutes and junior colleges.

In 1961, President Kennedy appointed a Panel of Consultants on Vocational Education who were instructed to explore the possibility of broadening the occupational scope and increasing the enrollment of high school age youth and post-high school youth and adults in vocational education. It is worth noting that the twenty-five panel members appointed broke down into fifteen educators, three businessmen, three labor leaders, three Federal Government representatives, and one Executive Director of a professional association.[37]

A rough count of the approximately 82 bibliographic citations in the Panel's report[38] revealed that almost half could be categorized as "input-output" evaluative studies of a cross-sectional survey nature and 15 drew upon the "experiential" evaluative approach. None, as far as could be judged from a cursory analysis, qualified

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37 Education for A Changing World of Work: A Report of the Panel of Consultants On Vocational Education. Washington, D. C., U. S. Department of Health, Education and Welfare, Office of Education, 1963, pp. 281-285.

38 op. cit., pp. 265-273.

as "process" evaluations; only two could be described as "evaluation" approaches; and the remainder could have been classified as an "organizational" analysis approach or some variant thereof.

The issues confronting all of education did not go unnoticed in the report. The panelists were clearly sensitive to the important role that vocational education could and should play in providing the disadvantaged and the school dropout with more relevant and rewarding educational programs. As a mechanism for insuring that future deliberations on the responsiveness of vocational education to national needs, the panel recommended that a National Advisory Council be established to weigh and consider policy issues that would arise in the future. This recommendation proved to be one of the more important ingredients of the landmark legislation passed and signed into law by President Johnson on December 18, 1963. In addition, the Act called for research, post-secondary education, work-study programs, residential schools, and categorical aid to various target groups.

It also specified that the Secretary of Health, Education and Welfare would appoint a second panel in 1966 with the responsibility for reviewing vocational education programs and laws and making new recommendations to the Secretary on any needed changes (not later than the first of January, 1968.)[39]

In 1964, the Educational Policies Commission of The National Education Association recommended that fourteen years of tuition-free education be made available to all students who sought it. It was their contention, based on national surveys of student and parental attitudes, that low-cost post-

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39 Melvin Barlow, "Changing Goals," in Summers and Little (Eds.), Vocational Education: Today and Tomorrow. Madison, Wisconsin; University of Wisconsin, 1971, pp. 20-21.

secondary institutions would appeal to a broad cross-section of students--those who were uncertain of their future career interests as well as those who knew where they wanted to go but could not otherwise afford college. Anti-dropout campaigns were launched and nationwide ads stressed the importance of a high school diploma in order to qualify for a job.

Despite the passage of the vocational education legislation in 1963 and the Elementary and Secondary Education Act in 1965, the 1967 Advisory Council on Vocational Education[40] found that the expanded goals of vocational education as visualized in 1963 Act were not being achieved. The Advisory Council met in an atmosphere of urgency following the social uprisings in Watts, Cleveland, Trenton, etc. "The impact of the social disturbances in these and other cities and the relationship of these disturbances to social and economic conditions provided new and deep social concern about the role of vocational training and education in ameliorating these conditions. The relationship to vocational education of such problems as unemployment, disadvantaged groups, ethnic groups, divergent cultural backgrounds, poverty, deficient housing,...were discussed frequently by the Council."[41] In its deliberations, the panel was able to draw upon a number of evaluative studies sponsored by the Division of Adult and Vocational Education Research, USOE. Of the 88 bibliographic items noted in the Panel's report,[42] four times as many "evaluative" studies (using Aversch

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40 Advisory Council on Vocational Education, Vocational Education: The Bridge Between Man and His Work. Washington, D. C., U. S. Department of Health, Education and Welfare, Office of Education, U. S. Government Printing Office, 1968.

41 Barlow, op. cit., p. 22.

42 Advisory Council on Vocational Education, op. cit., pp. 214-217.

et al's definition) were referenced in the '68 report in comparison to the '63 report. In contrast, only half as many "experiential" studies were cited in '68 as in 1963. With the coming of federally supported R&D in the vocational education domain, a new crop of sophisticated evaluative efforts have been seeded and were about to bear fruit. Out of the deliberations of the Council emerged several dramatic changes which were to impact on vocational education for years to come. The viability of those ideas can be at least partially attributable to the sound empirical research made possible by the Part C provisions of the '63 Act. Virtually for the first time, hundreds of professional organizations became involved in the 1968 deliberations with the funding of conferences, reports, and hearings through the use of federal funds earmarked for that purpose.[43]

A number of new initiatives were incorporated into the 1968 Amendments. The principle of greater access to vocational programs, an important theme in the 1963 Act, was strongly endorsed and extended in 1968. Vocational guidance and career planning at junior high school and even the elementary level were stressed. Disadvantaged groups were singled out for special attention. Work-study programs were expanded; cooperative work-experience provisions were strengthened in order to help needy students "earn while they learned." All occupations, except those classified as professional, were included under the vocational education rubric. In short, "persons of all ages in all communities

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43 See, for example, The Massachusetts Institute of Technology. Final Report of the Summer Study on Occupational, Vocational, and Technical Education. Cambridge, Mass.: MIT, Contract No. OE-5-85-135, 1965. Also Arnold Katz, "Planning and Programming of Vocational Technical Education: A Summary of the Reconnaissance Surveys." Menlo Park, Calif.: Stanford Research Institute, 1967.

of the state... will have ready access to vocational training or retraining...."[44]

Another, often overlooked provision of the '68 Amendments was the strengthening of the Office of Education's procedures for collecting and evaluating data on how well the provisions of this new legislation were being carried out. Periodic statewide reviews and evaluative studies were mandated a year in advance of National evaluations.

Were these provisions and initiatives dramatic departures from the past? Yes, in the eyes of traditionalists; no, in the eyes of reformists. One means of assessing the extent or degree of change would be to contrast the national goals set forth in 1917 with those in 1968. Before attempting that contrast, however, a brief exposition on what goals represent and their function in educational evaluation will be provided.

The Problems of Goal Definition.

Characterizing and comparing national goals is a risky undertaking in that the regional differences and patterns of development of individual school districts could well render evaluative judgments non-representative of state and local efforts. The observations that follow were based on the assumption that national goals can best be expressed by tapping into the socio-political climate of the times.

Educational goals, as distinguished from instructional objectives, reflect the broader, longer term commitments of education. Objectives tend to represent more specific and tangible statements which describe the end of an action or represent an intermediate step directed toward a more distant goal. The former Commissioner of Education, Sterling McMurrin, provided a useful distinction

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between goals and objectives when he stated: "Goals should be few in number. Objectives, which must change with changing circumstances, are points along the way which must be reached if the basic goals are to be realized. Objectives must be concrete and specific to facilitate the making of decisions, whether those decisions concern the appointment of faculty, the admission of students, the development of curricula, or the allocation of financial resources."[45] Thus objectives tend to represent more specific and tangible statements and include program objectives, course objectives, student personnel objectives, etc.—the determination of which is primarily the responsibility of the relevant professional educator concerned. Goals, on the other hand, emerge or are ratified by the deliberations of parents, concerned citizens, professional educators, and politicians. They frequently emerge as a result of a series of compromises rather than through more deliberate or rational consideration.

"Output" goals, as distinguished from "support" goals, describe the knowledge and skills and attitudes students are expected to carry away with them as they graduate from or leave an educational program. Support or process goals, on the other hand, are concerned with those activities that are designed to make the learning experience possible, or to create a climate in which students can pursue the development of knowledge and skills. Many vocational educators support the argument that "process goals" are the proper domain of vocational education. In this latter instance, the achievement of support goals can be looked upon as both "effective" or "efficient." Etzioni

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45 Sterling McMurrin. Reported in Management Forum. Washington, D. C.: Academy for Educational Development, Vol. 1, No. 2, October 1972, p. 1.

distinguishes between effectiveness and efficiency when he states that educational "effectiveness is determined by the degree to which it realizes its goals, whereas the efficiency of [education] can be measured by the amount of resources used to produce a unit of output."[46]

Unfortunately Congress rarely states its legislative goals in measurable terms, presumably, to avoid offending their colleagues in order to help assure a particular Act's passage. The higher the level of abstraction of a goal to be served, or the less controversial, the more likely it will be accepted. School lunch programs, for example, were designed to safeguard the health of the nation's children and at the same time to encourage the domestic consumption of nutritious agricultural commodities. Since some Congressmen might have been concerned that the latter goal would drive up the price of food, then the former might, in fact, be jeopardized. Consequently, it was not stressed in the proposed legislation.

Contrasting the goals of vocational education as stated in the compendium of principles laid down by the Federal Board for Vocational Education in 1917 is a challenge worthy of a competent historian. Fortunately, a number of recent publications,[47] have successfully traced the changing goals of vocational education as exemplified in the deliberation of the Commission on National Aid to Vocational education (appointed by President Wilson in 1914), and the panel of

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46 Amitai Etzioni. Modern Organizations. Englewood Cliffs, New Jersey; Prentice Hall, 1964.

47 See, for example, Arthur Wirth. Education in the Technological Society, Scranton, Penn.: Education Publishers, 1972, or Melvin L. Barlow, History of Industrial Education in the United States, Peoria, Ill.: Charles A. Bennett Co., Inc., 1967.

consultants on vocational education appointed by President Johnson in 1967.

Barlow contends[48] that the basic goals of vocational education have not changed since the enactment of the Smith-Hughes Act in 1917. What changes have occurred, he argues, have been in relationship to the people served and the range of occupations covered.

In 1917, the target groups were high school students and employed persons. The Vocational Education Amendments of 1968 embraced the same population but also identified students handicapped by ethnic and economic burdens, high school dropouts and post-high school age students in need of specific entry level job skills, under-employed persons, unemployed persons, and the physically and mentally handicapped. Thus, according to Barlow, Congress in 1968 urged vocational educators to expand and improve programs of occupational training, not as a separate entity, but as an essential part of and in concert with the total educational enterprise.

While Barlow may argue that the basic principles of vocational education have remained essentially the same, other leaders in the vocational education movement perceive several significant shifts in goals in response to changing societal needs. Law[49] observes that the value of vocational education stems from the fact that it deals with the concrete rather than the abstract. Its current effort to serve "persons of all ages in all communities" requires new approaches and more effective teaching methods. Training, he feels, should not be confined.

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48 Melvin Barlow, "The Philosophy for Quality Vocational Education Programs," in the 4th Yearbook of the American Vocational Association. Washington, D. C.: AVA, Inc., 1974.

49 Law, op. cit.

to a single career today. All of his observations point to the significance of the "process" goals in vocational education and the lack of precision in specifying what the output goals should be. It is this latter requirement which Law argues deserves our attention in light of the changing demands of the work place.

The value of Law's observations lies in his critical examination of what Barlow contends are the basic principles underlying the philosophy of modern vocational education. Law challenges Barlow's conclusion with regard to equal educational opportunity. Barlow argued that the originators of vocational education meant to include everyone regardless of sex, creed, color or nationality. Law contends, on the other hand, that history does not support his position. Much of the initial support for the National Society for the Promotion of Industrial Education came from the National Association of Manufacturers (NAM) who saw vocational or "industrial education" as a way of insuring a continuous supply of skilled labor. The anti-union basis of the NAM and the status of blacks and women in our society at that time opens to question the validity of Barlow's claim.

The concept of equal access to educational opportunity gains credence and vitality among educators in accordance with the degree of endorsement and acceptance by the larger society. While the concept was embodied in the initial formulation of basic principles, it took the civil rights movement of the late 50's and early 60's to "raise" the consciousness of vocational educators and concerned legislators to bring about a degree of implementation.

Massive federal, state and local programs of financial assistance helped minority students in their quest for equal educational opportunities. Federally guaranteed loans and educational opportunity grants paved the way for many students to afford college. The results, as we have seen, have been dramatic. So dramatic, in fact, that it has provoked some critics to observe that open-door colleges were the "coming slums of higher education."[50] Such critics contended that a prime function of the community colleges was to "cool out" the unqualified student who aspired to a baccalaureate degree or higher occupational status than that of his parents. These students, they argued, could never qualify for entry into the more elite colleges and universities because of their social/economic position and lack of the more conventional middle and upper-middle class values. Thus by separating such students into vocational tracks at the junior college level, four-year institutions would be protected from the less academically qualified by making such students feel that they had their opportunity but they "blew it."

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[50] See, for example, Jerome Karabel, "Community Colleges and Social Stratification." Harvard Educational Review, Vol. 42, No. 4, November, 1972.

Karabel and his fellow critics failed to recognize that society, like nature, requires a sorting out process. Not all youngsters fortunately aspire to being President. Havighurst estimates that today's work force can be classified into those who function as "maintainers of society," those who are "entrepreneurs," and those who are the alienated or dropouts from society.[51] He estimates that probably 50 percent of all youth fall into the first category, 35 percent in the second, and 15 percent in the third.

The "maintainers of society" adapt themselves to the expectations of adult society rather easily. Work for this category occupies a less important place in the life of the person than it does for those classified as "entrepreneurs." While it has some part to play in helping the individual achieve self-identity, Havighurst contends that it is not the central organizing force as it is for more ego-involving occupations. "Occupations of this type are generally those in which there is a fixed number of hours, and pay is by the hour. Although the occupation may require a great deal of skill, it seldom demands the continuous thought that leads a man to worry about it or plan for it when he is not actually working."[52] The types of jobs that Havighurst describes cross-cut production oriented occupations as well as retail, clerical and even some professional level occupations such as social workers and teachers.

Ego-involving occupations--those which the "entrepreneurs" of our society occupy--may involve some 35 percent of today's work force, according to

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51 Robert J. Havighurst, "Youth Exploration and Man Emergent," in Borow (ed.), Man in a World of Work, Boston, Massachusetts: Houghton, Mifflin Co., 1964.

52 Ibid., p. 13.

Havighurst. "A job in this category is the organizing force in a person's life. He lives for it, and life would be empty without it. He does not count his working hours. He takes his job home with him at night. His vacations are related to his work."[53] The satisfactions derived from such experiences are those associated with a sense of creativity, of being of service to others, and of being in a prestigeful occupation.

The alienated perhaps represent 15 percent of the total youth group. They do not accept the norms of society. While some are apathetic, others are openly hostile. There are perhaps two classes of youngsters from which the alienated are recruited--the upper middle class variant who is unwilling to commit himself or to fulfill the expectations of the larger society and the more marginal youth who have experienced deprivation, prejudice and neglect during their formative years. This latter group, we now know, can be reduced substantially in numbers by early identification and assistance during kindergarten and the early elementary school years.

If we can accept Havighurst's threefold classification, then vocational education's effectiveness can be assessed in terms of how well it meets the needs of those three student groups. In general, it could be argued that our elementary and secondary schools should help guide those with appropriate abilities and attitudes into society-maintaining or ego-involving jobs and reduce the number of alienated youth. College-oriented students will need to weigh more carefully occupational opportunities available to them. Such opportunities will insure them a degree of self-directiveness, prestige, and continuing self

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[53] Ibid., p. 10.

development. For those who go to work immediately after high school or into more specialized vocational training at the technical level, they too should have the opportunity to choose or qualify for vocations which permit them to associate with friends on the job and avoid boredom. Self-respect and economic security are, of course, equally important to both groups.

Of the approximately 25 percent who drop out before they complete high school, about half of this group will settle in society-maintaining jobs and will find satisfaction both in and outside the work place. Some will return to complete their secondary school training and others will find opportunities for skill development in adult education or government-sponsored training programs. The remainder, those who are likely to become identified as alienated, will need special help in the form of closer contact with more stable working adults and opportunities for developing entry-level job skills. Work study programs, co-operative education programs, Job Corps and CETA sponsored programs represent study and work experiences which may prove to be effective alternatives for this population.

Decision Making Structures in Vocational Education.

Since most of the shape and substance of modern vocational education takes its direction from The Vocational Education Amendments of 1968, a description of the decision-making process should begin with a statement of the programmatic requirements of this Act. Grants-in-aid to states, long the tradition in this arena of federal support, was continued as the basic funding mechanism. Rather than providing matching funds for programs in particular categories of occupations, however, the '63 Act and the '68 Amendments broadened the scope of support to embrace all relevant occupations and focused the federal monies on

specific target populations, e.g., secondary and postsecondary students, the handicapped, and the disadvantaged. The rationale, however, for federal funding remained the same as that expressed in 1917, namely, that national need warranted federal intervention where support at the local and state level might be insufficient. Closely allied with this concept was the recognition that some regions might suffer from an inadequate tax base for the support of education and would require federal dollars to bring vocational education programs up to minimal standards. Again from the perspective of national needs, Congress felt justified in specifying which occupations should be served in the best interest of the country as a whole. Specifying target groups and percentage set-asides help to insure that the federal priorities would be met.

While sufficient precedent had already been set by Congress in exploiting other strategies of aid to education (block grants, categorical aid, matching grants), it chose to combine all these strategies into one legislative program. The result, aptly described by Davie,[54] led to a "specification of separate grants-in-aid, a maintenance of effort requirement and...the distribution of federal funds by a state among local educational agencies."

Congress was not satisfied with the pattern of state and local spending on vocational education and sought to insure compliance with its priorities by requiring in the '63 Act that each state prepare a plan for allocating federal funds and that that plan be reviewed and approved by the Office of Education before such funds could be allocated. It made no attempt, however, to control

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[54] Bruce F. Davie, "Federal Funds of Vocational Education: The States Grants Mechanism," in Mushkin (ed.), State Aids for Human Services in a Federal System, Washington, D.C.: Georgetown University, Public Serv. Lab, 1974, p. 282.

the allocation of state grant monies. This led to continuing support for the old traditional occupational categories by states and less emphasis on national priorities. Given the option, for example, to use their own monies in the construction of either area vocational schools or community colleges, states overwhelmingly supported the former even though postsecondary education was strongly emphasized in the '63 Act. This Federal concern was expressed in the '68 Amendments through Congress imposing guidelines on state grant allocations.

In general terms, these guidelines stipulated that state administrators distribute federal funds according to the manpower and vocational education needs of the local region, relative ability of the local region to pay, and the costs of vocational education in the local area. They prohibited states from denying federal funds to a local school district if the district was unable to provide matching funds. Beyond these stipulations, however, states were still free to allocate state monies either by means of grants or formulas (the former seemingly the preferred strategy, as it puts greater discretionary control in the hands of the state). At the heart of the issue, of course, was the issue of equity. Without prodding, in Congress's view, states were apt to continue obsolete practices which not only failed to serve national needs but often violated the hard won national commitment to equal educational opportunity.

In addition to the categorical grants-in-aid and guidelines for state funding programs, the '68 Amendments authorized state and national advisory councils and state departments of education to recruit staffs and to engage in or to enlarge their planning efforts. How well these plans ensured the responsiveness of states to changing needs can be judged by the observation in the recently published Government Accounting Office report: "State plans are

prepared only for compliance with OE requirements in order to receive Federal funding. States do not use these plans for operational purposes and they do not measure progress against what is described in the plan."[55] Suffice it to say, not all planning in the name of vocational education found its way into operating budgets and administrative programs.

State officials and State Boards are less likely to be concerned with national priorities than they are with the needs and traditions (and voter opinions) of the state. Federal support for vocational education has led to a curious condition which can be likened to an inverse cornucopia of categorical aid programs. By the time funds and their attended regulations reach the local level, they are so constrained by rules and regulations that only the most adroit administrator can comply. Confusion and ill-will are the result. In the interest of sound planning, the Office of Education issued a Guide[56] to be used by state officials to assist them in the preparation of state plans. Even with such assistance, the political and pragmatic orientation of state and local leadership is such that policy decisions are often made in an atmosphere of urgency with little regard given for more scholarly debates on the merits of the case at hand.

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55 General Accounting Office, Report to the Congress: What is the Role of Federal Assistance for Vocational Education. Washington, D.C.: U. S. Government Printing Office, MWD-75-31, 1975, p. 23.

56 Guide for the Development of a State Plan for the Administration of Vocational Education under the Vocational Education Amendments of 1968. Washington, D.C.: U. S. Department of Health, Education, and Welfare, Office of Education, May, 1970.

Carl Schaefer put it succinctly when he stated that "our leadership (state and local) is politically astute to the point of making for bad education. Their mode of policy decision making is based on the principle--if there is enough interest in some problem to support a major study, then the interest will be so great that no one will be willing to wait for the conclusion....On the other hand, if there is not a broad concern over the problem, then there will not be enough interest to fund the research anyway."[57]

Summary and Recommendations.

Early in the deliberation of this paper, policy research was defined as the study of empirical relationships between dependent variables of high policy relevance and independent variables that are amenable to manipulation and control in the context of an operating program. It was then suggested that future efforts at plotting a course for vocational education should take into account several important socio-economic developments--the coming crunch between those who advocate expansion and continued proliferation of goods and services and those who stress planned frugality was suggested as one example. How such developments might impact on vocational education was then traced through the various legislative programs and decision making structures which have guided the allocation of vocational education resources in the past. The application of various evaluation strategies to policy recommendations was analyzed and the growing

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57 Carl J. Schaefer, "Policy Research and National and State Evaluation Studies of Vocational-Technical Education," presented at the American Vocational Association, Annual Convention, New Orleans, Louisiana, December, 1974.

sophistication of policy researchers concerned with the effectiveness of vocational education noted. Lastly, a detailed examination of the evolution of the concept of equal educational opportunity as it took on substantive form in vocational education was traced. Its resultant impact on the deliberations of the 1967 Vocational Education Advisory Council and subsequent legislative enactments and their implications for action was evaluated against the backdrop of the play of forces in the larger society.

To call into play the tools and services of policy researchers in behalf of vocational education will require:

(1) Administrators and legislators who are willing to pursue "better than chance" answers to tough policy issues.

(2) A focus on those variables or implementation strategies which are manipulable within the context of a conceptual model.

(3) Decision makers with the authority and resources to implement policies.

(4) A cadre of policy researchers who understand the problems of educational officials and who can translate their recommendations into a language which lend themselves to implementation.

Rigorous application of disciplined inquiry into social policies can help to identify the logical flaws, factual limitations, erroneous assumptions and faulty methodologies often underlying present decisions. Considerable headway can thereby be achieved toward the goal of effective vocational education programs serving present and future needs.

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